FINAL REPORT

EXPLORATION LICENCE 7269

18th June, 1991 to 10th September,1999

EXPLORATION LICENCE 7228

14th January, 1991 to 10th September, 1999

Licensee:	Ashton Mining Limited
Operator:	Ashton Mining Limited
Sheet Reference:	1:250,000 Bauhinia Downs (SE53-03)
Submitted to:	Department of Mines and Energy, Darwin
Copies to:	Ashton Mining Limited - Perth Office Ashton Mining Library

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December, 1999
Report Number: 52431

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SUMMARY

During the period 14th January, 1991 to 10nd September, 1999, and 18th June, 1991 to 10th September, 1999 Ashton Mining Limited carried out an exploration programme within Exploration Licences 7228 and 7269 respectively. During this period the licences were reduced to 9 blocks each through statutory relinquishments. A separate closed file report has been completed that covers the relinquished portions of the licences (Ashton Mining Limited. Report No.52432). This report provides details of work undertaken over the entire licences 7269 and 7228, including the unrelinquished portions that have been incorporated within SEL 9779.

In 1997 renewals for the licences were granted for an additional two years. An application for a Substitution Exploration Licence was made over the Abner Range, incorporating EL 7269 and EL 7228 as well as adjoining Els 9211 and 8698. On the 10th September, 1999, SEL 9779 was granted.

A kimberlite breccia pipe has been discovered on EL 7228. Work during the life of the tenements has been focussed on follow-up sampling on the plateau immediately to the south of the breccia pipe. Bulk-stream samples of drainages on the Abner Range have confirmed the prospectivity of the area with several diamonds being reported.

Several prospective areas were interpreted from a loam grid that was completed over the Abner Range. Within these prospective areas, follow-up loam sampling, geochemical sampling, helimag and various ground geophysical methods have been used to delineate drill targets. No further kimberlites were drilled from any of the follow-up.

An airborne GEOTEM survey was undertaken over the Abner Range. The targets delineated

from the survey were discriminated using various techniques that included Max-Min surveys, loam sampling and some geochemical sampling. Delineated targets were drilled but failed to intersect kimberlite.

A blanket EM-34 survey has been completed over prospective areas of the Abner Range. The areas were selected to cover GEOTEM targets and loam sample anomalies. Several drill targets were selected from the surveying but failed to intersect kimberlite.

The area remains prospective due to the unexplained diamond and chromite occurrences. Cretaceous sedimentary cover overlies a significant area of the Abner Range and it is in these areas that further work will be required.

Total exploration expenditure for EL 7269 and EL 7228 amounted to $936,172.

1.0 INTRODUCTION

This report details exploration activities carried out by Ashton Mining Limited over the Exploration Licences 7269 and 7228. The unrelinquished areas of Els 7269 and 7228 that have been incorporated in SEL 9779 are also included in this report and therefore this report is to remain on closed file. A separate final report (Ashton Mining Limited Report Number 52432) has been submitted for the relinquished areas.

EL 7269

Exploration Licence 7269 was granted on the 18th June 1991, for a period of six years. The licence originally covered an area of 145 blocks, but was reduced to 9 blocks through statutory relinquishment (Table 1).

Ashton Mining entered into a joint venture with BHP Minerals on the 24th January 1992, allowing BHP Minerals to earn up to 80% of the base metal rights to EL 7269. The joint venture was known as the McArthur River Joint Venture. BHP withdrew the licence from the joint venture on the 11th April 1995. A final report covering Base Metal Exploration for EL 7269 was submitted as part of the Relinquishment Report, 18th June, 1991 to 17th June, 1995. This report detailed work undertaken by BHP Minerals over the full licence area.

EL 7228

Exploration Licence 7228 was granted to R.M. Biddlecombe on the 14th January 1991. On the 1st June 1991, Ashton Mining Limited entered into a n agreement with R.M. Biddlecombe to earn a 75% interest in the licence. On the 7th June 1993, R.M.

Biddlecombe sold his 25% interest to Ashton Mining Limited. The licence originally comprised 36 blocks, however, through statutory reductions, now comprises 9 blocks (Table 1).

The Department of Mines and Energy granted group reporting of these licences on the 13th January 1995.

In 1997 renewals for both licences were granted for an additional two years with the renewed tenements expiring in 1999. Applications for second renewals were also made. To consolidate reporting and expenditure, a Substitution Exploration Licence application was granted on 10th September, 1999. The relinquished and retained areas of EL 7269 and 7228 (through granting of SEL 9779) are shown in Figures 1a and 1b.

This report provides a summary of work undertaken by Ashton Mining and BHP Minerals over the ELs 7228 and 7269. It provides details of the work completed within the retained areas that have been incorporated within SEL 9779 and therefore is to remain on closed file.

Table 1

Licence	Blocks 1991	Blocks 1992	Blocks 1993	Blocks 1994	Blocks 1995	Blocks 1996	Blocks 1997	Blocks 1998	Blocks 1999
7269	145	145	75	36	18	9	Waiver EL Renewed	9	Incorporated in SEL 9779
7228	36	36	Waiver	18	9	Waiver	Waiver EL Renewed	9	Incorporated in SEL 9779

2.0 DIAMOND EXPLORATION

2.1 Year One

2.1.1 Data Review

Prior to commencing fieldwork, a comprehensive data review of results and previous exploration in the tenement area was undertaken. This highlighted areas that had not been adequately explored. A photogeological study of available photography covering the Bauhinia Downs 1:250,000 mapsheet was also carried out to select structural and geomorphic features that could represent kimberlite intrusives. The study also identified the extent of poorly drained planation surfaces, since these areas could contain preserved intrusives that have not shed into the present drainages. From the above studies, sample sites were selected for the first year sampling programme.

The detailed review of exploration results for the area, primarily by CRA Exploration revealed a substantial chromite anomaly that had been traced to a large cleft in the Abner Range Plateau, located at the headwaters of Bessie Springs Creek. A concentrated effort by CRA Exploration, which included airborne magnetic and airborne EM surveys, failed to elicit kimberlite type responses that could incorporate a source for the chromite.

2.1.2 Reconnaissance Sampling

In the first year of tenure, a reconnaissance stream-sampling programme was implemented on Els 7228 and 7269, with a total of one hundred and one stream/gravel and loam samples being collected and forwarded to Ashton's Perth laboratory for routine microdiamond and indicator mineral analysis. Sample locations are shown in Plans 1 and 2; a complete listing of results is presented in Appendix 1.

2.1.3 Field Inspection

A field inspection of the headwaters of Bessie Springs Creek, revealed a circular feature associated with the chromite-bearing cleft reported by CRA Exploration. Concentric fracturing and minor brecciation indicated the presence of a pipe. Stream samples taken from the cleft and loam samples collected from the surface of the circular feature confirmed the presence of kimberlitic chromite. Sample locations are shown in Figure 2.

2.1.4 Drilling

Four shallow RAB holes and one DDH were drilled into the circular feature (Figure 3). The core from the DDH clearly demonstrates that the circular feature is a sandstone breccia pipe.

Analysis of the drill spoils from the RAB holes confirmed the kimberlite nature of the pipe by the recovery of abundant kimberlitic chromite and microdiamonds. Drill logs are presented in Appendix 2, and sample results in Appendix 1.

Geochemistry

The geochemical analysis of clay interstitial to the breccia fragments confirms an igneous component. Analysis results are listed in Appendix 3, and show elevated responses consistent with an intrusive breccia body.

2.2 Year Two

2.2.1 Bulk-Stream Sampling

Two reconnaissance bulk-stream samples were collected during the reporting period from EL 7269 (BAU 4007 & BAU 4008). The 50 tonne samples of minus

50mm stream material were treated through the Ashton Mining HMS plant situated at Cape Crawford. One of the samples reported positive, containing 1 macro-diamond. Sample locations are shown in Plan 2.

Another 70 tonne screened sample (BAU 4006) was collected from a stream draining an area in close proximity to the Breccia pipe discovered in the previous reporting period. The sample was screened to –50mm on site before being transported to Ashton's HMS plant at Cape Crawford. No commercially sized diamonds were recovered from the bulk sample BAU 4006. The sample location is shown in Plan 1.

2.2.2 Loam Sampling

A total of 528 x 60kg loam samples were collected within the area extending southwards from the previously identified breccia pipe and covers mostly EL 7228 but also extends into EL 7269. The location of this grid and sample sites are shown in Plan 1. Loam samples were combined in batches of three for processing and thus only give a combined result for each three adjacent samples.

Follow-up sampling was initiated in the reporting period based on the results of the loam grid. A total of 25 x 40kg samples were collected in the area covering sample BAU 2942 which reported 7 kimberlitic chromite. Four of these samples tested positive for indicator minerals. A complete listing of sample results is shown in Appendix 1.

2.3 Year Three

2.3.1 Bulk-Stream Sampling

Two bulk samples were collected from drainages EL 7228. The samples were

between 30 and 50 tonne in size and of minus 50mm stream material. The samples were carted to Cape Crawford and treated through the Ashton Mining HMS. Both samples, BAU 04062 and 04063 reported positive containing 1 and 2 macro-diamonds respectively. Sample locations are shown on Plan 1.

2.3.2 Gas Vapour Sampling

Orientation samples were taken from the Abner Range breccia pipe to test the usefulness of this technique in discriminating kimberlite intrusives from the surrounding country rock

A total of 22 samples (ABA 001-022) were collected, sieved through a –2mm screen until approximately 5kg of material was collected. Samples were despatched to the Magellan laboratory in Brisbane. Sample locations are shown in Figure 4. Sample results are presented diagrammatically in Figure 5. The samples are centred on the kimberlite breccia pipe, with sample ABA001 having an AMG coordinate of 595350mE, 8145500mN (AGD 66, Zone 53)

Results clearly show the breccia pipe to be distinguishable from the background samples and indicate that this technique may prove useful in following up loam anomalies on the Abner Range.

2.3.3 Geophysics

In June 1993, Ashton Mining Limited commissioned Geoterrex Pty Limited to fly an airborne EM and magnetic survey over its Abner Range tenements. A total of 525-line km were flown.

Survey specifications for the GEOTEM electromagnetic system are shown in Appendix 5 and the GEOTEM stacked profiles are given as Appendix 6. The GEOTEM survey location and flight paths are presented in Plans 5 and 6 respectively, the contoured TMI data is given in Plan 7 and the de-herringboned ch 18 transient response data is shown in Plan 8.

2.4 Year Four

2.4.1 Sacred Site Survey

Before the commencement of Ashton's 1994 field programme, an application was made to the Aboriginal Area Protection Authority, to carry out a sacred site survey over the Abner Range plateau. The authority certificate recorded no aboriginal sites within the survey area.

2.4.2 GEOTEM Target Follow-up

Field follow-up of Geoterrex selected targets was undertaken on a total of 31 targets in the first part of the 1994 field season (8 within EL 7269 and 23 within EL 7228). Follow-up involved geophysical assessment using the Max-Min system. Anomalous responses were recorded over some of the targets, however these were deemed to be caused by lithological differences. Results indicated two conductive regimes that were consistent with a lithological change from a relatively resistant sandstone sequence, to a conductive siltstone/shale sequence. No targets were recommended for drilling. Target locations are shown on Plan 5 and the Max-Min survey results are given in Appendix 4. A complete listing of the GEOTEM targets is given in Appendix 7.

2.4.2 Soil Geochem Sampling

A soil geochem grid was completed over a large anomaly located 1.3km south of the Abner Range breccia pipe. A total of 297 samples were collected on a 25m x 100m grid.

A second geochem sampling programme was completed over a site covering an area of 800m x 800m. A total of 153 samples were collected on a 50 x 100m grid. Sample locations are shown on Plan 3. All 450 samples (AB001 – AB450) were despatched to Analabs for analysis.

Two priority targets were interpreted from the northern soil geochemical grid and three further targets from the southern soil geochemical grid. Ground inspection of the sites revealed no obvious vegetation feature or cause of the anomaly. The areas were recommended for detailed follow-up sampling.

2.5 Year Five

2.5.1 Infill Geochemical Sampling

Detailed geochemical sampling of the soil geochem anomalies identified previously was completed. A total of 550 samples were collected (BAUG 580-1129) and forwarded to Australian Laboratory Services. Review of the geochem data delineated eight anomalies warranting ground inspection and possible RAB drilling.

Results are provided in Appendix 3. Sample locations are given on Plan 3.

2.5.2 GEOTEM Survey Review.

EM targets previously generated from an airborne survey were followed-up by ground inspection and loam sampling. A total of 24 x 4 bag samples were collected and dispatched to the Perth laboratory for analysis. Results are shown in Appendix 1. Sample locations are shown on Plans 1 and 2.

In addition, EM data was reviewed in conjunction with Aberfoyle Resources, paying particular attention to highly conductive zones, which could mask conductive kimberlites. No further targets were identified for follow-up.

2.5.3 Helimag Survey

A helimag survey was completed over the two original geochemical grids during the reporting period. Geoinstruments flew a total of 119.5 line km. Interpretation of the survey data delineated five targets for follow-up. Survey boundaries are and target locations are shown in Plans 4 and 5. Flight path and gridded data are provided in Figures 6 and 7.

2.5.4 EM-34 Surveys

Ground truthing of both GEOTEM and magnetic anomalies using EM-34 was undertaken during the reporting period. Nine targets were surveyed, with three targets recommended for drilling. EM-34 survey specifications are given in Appendix 5.

Blanket EM-34 surveying using 50m line spacings commenced over the northern end of the loam grid where common indicator minerals have previously been reported. A single discrete anomaly of 50m diameter has been noted and recommended for drilling.

The complete summary of EM-34 traverse lines completed on the Abner Range are shown in Plan 9 and a gridded image is presented as Plan 10.

2.5.5 Bacterial Leach ICPM Sampling

Bacterial Leach ICPM samples were collected at each of the GEOTEM anomaly sites. Approximately 500g of material was collected from a 20-30cm deep hole. Sampling was also conducted over the known breccia pipe.

A full listing of results is provided in Appendix 3.

2.5.6 Loam Sampling

In addition to loam sampling completed over the GEOTEM anomalies, a further ten samples (BAU 14254 – 14255, BAU 14257 – 14564) were collected over the geochem and helimag targets. One sample was also collected from a structural photofeature. A complete sample listing is given in Appendix 1.

2.5.7 Drilling

Jack Schubert Drilling Services of Mt Isa completed drilling activities. The design built rig incorporates a 200-psi/400 cfm compressor and is mounted on a 4 x 4 high cab Bedford truck. The drill holes are 4.5" in diameter and were drilled using a hammer bit.

A total of 12 RAB holes were completed (BH 571-579, 583-585). Drill hole locations are shown in Plans 1 and 2, logs are provided in Appendix 2 and drill spoil sample results are provided in Appendix 1.

No kimberlitic material was recognised in any of the drill holes. One drill spoil sample (BAU 14255) reported positive with one chromite from drill hole BH 583.

2.5.8 Aerial Survey

An aerial photographic survey was completed over the project area during the reporting period. Qasco Northern Surveys at a scale of 1:10,000 carried out this work. Flight lines are presented in Figure 10.

2.6 Year Six

2.6.1 Drilling

A further 13 RAB holes were again drilled by Schubert Drilling of Mt Isa in the reporting period. The holes were drilled using the same rig as listed previously.

Holes BH 681 to BH 683 and BH 690 were drilled on helimag anomaly AM01 for a total depth of 85. Hole BH 683 only reached 4m and was abandoned due to collapse of the walls. BH 684 to BH 687, BH 818 to BH 820 were drilled on EM-34 anomalies for a total depth of 191m, and BH 688, BH 689 and BH 819 were drilled on GEOTEM anomalies for a total depth of 124m.

Drill spoil samples were collected from each hole (except BH 819) for mineralogical analysis. All samples were reported negative. A complete listing of heavy mineral results for the drill spoils is given in Appendix 1. Sixteen samples were also collected for geochemical analysis. The samples were sent to Herbert and Associates for bacterial leach ICPM analysis. Samples were taken from holes BH 682, BH 684, BH 685, and BH 687 to BH 690. Geochem results are given in Appendix 3.

Drill hole locations are shown in Plans 1 and 2; drill logs are presented in Appendix 2.

2.6.2 Geophysics

Ground EM-34 surveys and a small ground magnetic survey were undertaken in the reporting period. Plan 4 shows the location of all geophysical surveys.

EM Surveys

Four of the EM-34 surveys form part of a blanket EM-34 survey initiated in the previous reporting period, while two smaller surveys were designed specifically to locate GEOTEM conductors. A total of 95.2 line km was completed. Plan 9 shows the location of all EM-34 traverse lines. The data was gridded and the resulting image is shown in Plan 10. No new conductors were located using the blanket EM-34 coverage. The two smaller surveys located GEOTEM target A_04 but failed to locate the A_09 conductor. No drill targets were recommended.

Magnetic Survey

The ground survey of 3.4 line km was completed over the helimag anomaly AM01. Figure 8 shows the line locations. The contoured image is clearly affected by laterite as shown in Figure 9. No obvious dipolar response is apparent and it is interpreted that the magnetic target is due to a well developed ferricrete layer. Survey specifications are given in Appendix 5.

2.7 Year Seven

2.7.1 Vegetation Sampling

During the reporting period, vegetation samples were collected over three grid areas within EL 7228 where loam samples had reported indicator mineral and microdiamonds. Grid lines spaced 100m apart were used, with samples collected every 50m. Most samples were of spinifex, however in low-lying areas, a different variety of grass was sampled. This work was completed in two programmes with a total of 530 samples being collected. All sample locations are

shown on Plan 3.

All samples were submitted to H.K. Herbert and Associates for geochemical analysis. Geochemical results are provided in Appendix 3.

Interpretation of data defined six zones with anomalous geochemistry. Previous sampling over kimberlites has ascertained the elements with anomalous values over kimberlites to include: Cerium, Cobalt, Erbium, Gadolinium, Gallium, Lanthanum, Molybdenum, Niobium, Praseodymium, Thorium, Titanium, and Thulium.

Due to the extreme variability in concentrations of the elements, all elements were first normalised using the following formula:

$$Z = \frac{X-\mu}{\sigma}$$

Where: Z-is the normalised value.
X-is the original value.
μ-Mean.
σ-Standard Deviation.

For interpretation, the above mentioned elements were normalised, summed and then plotted as a cumulative distribution (refer to Figure 11). The data is presented as three levels; background –0-50%, above background 50-85% and anomalous 85% +.

2.7.2 Drilling

Schubert drilling Services Pty Ltd of Mt Isa again undertook the drilling program. Prior to drilling, a Komatsu front-end loader was used to clear and repair access track to the Abner Range.

Seventeen RAB holes were drilled for 380 m in order to evaluate four of the vegetation anomalies. Holes were spaced at approximately 50m over the highest anomalous zones on each target. No kimberlite material was reported with all holes intersecting siltstone, consistent with the Abner Range stratigraphy. The remaining targets were not drill tested because of their size and sporadic geochem signature. A complete listing of drill logs is given in Appendix 2.

A total of seventeen drill spoil samples were collected for routine microdiamond and indicator mineral analysis. One of these samples reported a microdiamond; all other samples were negative. Results are provided in Appendix 1.

2.8 Year Eight

2.8.1 Follow-up Sampling

During the reporting period, three loam samples were collected from various fractures identified from aerial photography. The fractures occur in a 300m radius of a helimag target (AM-01). Previous sampling reported 32 chromite from a loam sample over the target (BAU 14255), however, no source for the indicator minerals was found. Chromite was reported from all samples including one sample that reported twenty-three grains. The results show a strong indicator distribution related to fractures within the vicinity of the magnetic target. It is interpreted that the indicator minerals recovered from a loam sample over the magnetic target are related to these fractures.

2.8.2 Geophysics

A small EM-34 survey was undertaken within EL 7228 and adjoining licence EL 8698. Approximately 7 line kms were completed within EL 7228. A complete summary of traverse lines is shown in Plan 9, and a gridded image of the results is given as Plan 10.

2.9 Sampling Method

Sampling was completed using helicopters to gain access to sample sites as they are the most practical form of transport. The best quality sample site is chosen in the vicinity of the pre-selected site and approximately 40kg of gravel is dug, sieved and the minus 4mm fraction collected in calico bags for laboratory processing at Ashton's Perth laboratory. The sieved sample generally weighs between 25 and 30kg and is contained within two bags.

2.10 Laboratory Procedures

All samples were processed by the Ashton Mining Limited Laboratory in Perth, where they were concentrated by Wilfley Table and heavy liquid separation techniques. The heavy liquid used is tetrabromethane with a specific gravity of 2.96. The concentrates were then screened into various size fractions, further concentrated by magnetic and electrostatic separation techniques and a comprehensive grain by grain examination carried out on the minus 1.0mm plus 0.425mm fractions.

3.0 BASE METALS EXPLORATION

A final report covering Base Metal Exploration for EL 7269 was submitted as part of the *Relinquishment Report, 18th June, 1991 to 17th June, 1995*. This report detailed work undertaken by BHP Minerals over the tenement area.

4.0 EXPLORATION EXPENDITURE

Exploration expenditure for the life of the licence amounted to $ 247,638 for EL 7269 and $ 688,534 for EL 7228. A detailed breakdown of expenditure is given in Appendix 8.

4.0 CONCLUSIONS

Results from the Abner Range tenements are promising. A kimberlite breccia pipe has been discovered on the northern margin of the Abner Range. The spread of indicator minerals, diamonds and the structural setting of the pipe suggest the presence of a diamondiferous kimberlite body to the south is likely. This area is covered by varying degrees of Cretaceous aged sediments that has hindered exploration to date. It is hoped that new techniques may be able to penetrate this Cretaceous sedimentary cover.

5.0 REFERENCES

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APPENDIX 1

Sample Results

APPENDIX 2

Drill Logs

APPENDIX 3

Geochemical Results

APPENDIX 4

Max-Min Results

APPENDIX 5

Geophysical Survey Specifications

Appendix 5 – Geophysical Survey Specifications

AIRBORNE EM AND MAGNETIC SPECIFICATIONS

Aircraft:	CASA C212-200 Turbo Prop VH-TEM
Magnetometer:	Scintrex caesium vapour optical absorption
Resolution:	0.01nT
Cycle Rate:	1.0 seconds
Sample interval:	60 metres

Electromagnetic System:	GEOTEM 11
Transmitter Base Frequency:	75 Hz
Receiver:	Horizontal coil axis in towed bird
Cycle Rate:	0.14 seconds
Sample Interval:	8.5 metres

Data Acquisition:	RMS GR33 thermal dot matrix recorder GEODAS digital acquisition system
Flight Line Direction:	180° - 360°
Flight Line Spacing:	200m
Tie Line Spacing:	5000m
Mean Terrain Clearance:	105m
Navigation:	GPS/Doppler

Appendix 5 – Geophysical Survey Specifications

MAX-MIN SURVEY SPECIFICATIONS

Instrument:	APEX Max-Min
Operating Frequencies:	3555 Hz
	1777 Hz
	888 Hz
	222 Hz
Components recorded:	In-phase and Quadrature
Coil Orientation:	Max coupled (Horizontal loop)
Coil Separation:	50 m
Line Direction:	East-West
Line Separation:	100 m
Station Spacing:	20 m

Appendix 5 – Geophysical Survey Specifications

EM-34 SURVEY SPECIFICATIONS

Instrument:	Geonics EM34-3
Operating Frequency:	1600Hz
Coil Orientation:	Horizontal Dipole (Coils upright)
Coil Separation:	20m
Line Direction:	E-W
Line Separation:	50m
Station Spacing:	20m
Positioning:	Fugro Differential with Trimble Scoutmaster GPS

Appendix 5 – Geophysical Survey Specifications

HELI-MAGNETIC SURVEY SPECIFICATIONS

Survey flown:	June 1995
Area:	Cape Crawford Area N.T.
Company Flown by:	Geo Instruments Pty. Ltd.
Company Flown for:	Ashton Mining Ltd.
Company Processed:	Kevron Geophysics Pty. Ltd.

AIRBORNE SURVEY EQUIPMENT:

Aircraft:	Bell 206 B3
Magnetometer:	Geometrics G833 Helium Vapour
Magnetometer Resolution:	0.01 nT
Magnetometer Sample Interval:	0.10 seconds
Data Acquisition:	Geo Instruments Model 2000
Data Recording:	1.2 Mb floppy disks
Spectrometer:	Exploranium GR820
Crystal Size:	16.8lt downward array
Spectrometer Sample Interval:	1.0 Seconds (approx 35 metres)
Flight Path Record:	VHS Colour Video System
GPS Navigation System:	Novatel 951R GPS Receiver

AIRBORNE SURVEY SPECIFICATIONS

Flight Line Direction:	000 - 180 degrees
Flight Line Separation:	100 metres
Tie Line Direction:	090 - 270 degrees
Tie Line Separation:	1000 metres
Terrain Clearance:	40 metres (MTC)

Flight path calculated from differentially corrected GPS Data using a Novatel 951R GPS Receiver.

Grid notation refers to Australian Map Grid Zone 53

MAGNETIC DATA CORRECTIONS:

Diurnal variations removed
IGRF(1990) updated to 1994.5 removed
Average survey base station value added to datum

RADIOMETRIC CORRECTIONS AND COEFFICIENTS:

Data has been corrected for aircraft and cosmic backgrounds.
Height corrected to a constant datum of 60 metres,
minimum height of 20 and a maximum of 300 metres.
Data has been corrected for channel interaction.

Appendix 5 – Geophysical Survey Specifications

The data has not been levelled.

	Tot.Count	Potassium	Uranium	Thorium
Arcft Bkg	60	3	2	0.75
Cosmic Bkg	0.52	0.025	0.021	0.026
Height Attn	0.00375	0.00317	0.00423	0.00377

STRIPPING RATIOS:

Alpha = 0.25, Beta = 0.4, Gamma = 0.81, Eta = 0.06

Appendix 5 – Geophysical Survey Specifications

GROUND MAGNETIC SURVEY SPECIFICATIONS

Instrument:	Geometric G856 magnetometer
Sensor Height	2.5m
Line Separation	10m
Station Spacing	5m
Line Direction	N-S
Positioning	Topofill and Compass
Date of Survey	October 1996

APPENDIX 6

GEOTEM Stacked Profiles

APPENDIX 7

GEOTEM Target Locations

(AMG Zone 53, AGD 66)

Appendix 7 – GEOTEM Target Locations AMG Zone 53, AGD 66

Easting	Northing	Target
591277	8137967	A-01A
591499	8137709	A-01B
591905	8137010	A-02A
592715	8136968	A-02B
593087	8137544	A-02C
592244	8139350	A-03
592500	8145643	A-04
593307	8140683	A-05A
593495	8140865	A-05B
593862	8142118	A-05C
594110	8142198	A-05D
593316	8139680	A-06
593885	8139387	A-07
594107	8141440	A-08
594275	8143465	A-09A
595292	8142288	A-09B
595315	8143825	A-09C
595691	8143010	A-09D
595895	8143269	A-09E
594537	8139000	A-10A
594676	8139229	A-10B
594676	8137362	A-11A
594670	8137529	A-11B
595706	8138334	A-12
596487	8141068	A-13
597120	8142300	A-14A
597270	8140596	A-14B
597687	8143054	A-14C
597274	8140172	A-15
593200	8142150	A-16
594500	8144900	A-17
589898.2	8139084	101A
589922.7	8143392	101B
589926.3	8144541	101C
590067.4	8138965	102A
590081.6	8142767	102B
590330.3	8142697	103A
590313.8	8147721	103B
590487.4	8141299	104A
590496.3	8147450	104B
590709.2	8137349	105A
590725.3	8147472	105B
590880.7	8137579	106A
590882.4	8139746	106B
590878.4	8140916	106C
590884.9	8147500	106D
591087.4	8144979	107A
591061.8	8146042	107B
591254.3	8138633	108A
591236	8140217	108B
591494.6	8137469	109A
591509.9	8138972	109B
591525.4	8148485	109C
591702.1	8147144	110A
591744	8148387	110B
591901.5	8137337	111A
591912	8139751	111B
591896.2	8141114	111C
591889.2	8143111	111D
591914.4	8147649	111E
591919.1	8148379	111F
592100	8140864	112A
592080	8147594	112B
592267.6	8137190	113A
592271.8	8140572	113B
592288.6	8144211	113C
592304.4	8147319	113D
592292.3	8147667	113E
592511.4	8140604	114A
592687.4	8137409	115A
592724.4	8142325	115B

Appendix 7 – GEOTEM Target Locations AMG Zone 53, AGD 66

Easting	Northing	Target
592703.5	8145302	115C
592772.5	8147403	115D
592904.8	8141174	116A
592905.3	8144584	116B
592909.6	8147634	116C
593122.6	8142440	117A
593128.8	8147710	117B
593285.8	8141607	118A
593304.9	8148012	118B
593491.4	8141731	119A
593516.6	8143009	119B
593719.6	8147198	120A
593883.8	8145261	121A
593837.9	8147032	121B
594120.1	8146625	122A
594248.9	8140323	123A
594260.2	8146629	123B
594490	8146493	124A
594665.5	8139474	125A
594884.4	8138435	126A
594894.7	8139551	126B
594877.9	8146525	126C
595089.1	8138483	127A
595096.7	8146463	127B
595116.2	8147101	127C
595283.6	8137239	128A
595309.4	8139358	128B
595290.5	8145622	128C
595299.3	8146637	128D
595477.2	8137152	129A
595468.3	8138726	129B
595496.1	8140251	129C
595480.6	8145572	129D
595702.9	8137177	130A
595680.6	8138620	130B
595882.8	8138634	131A
595884.4	8146524	131B
596080.6	8138894	132A
596089.8	8148220	132B
596331.1	8143268	133A
596446.7	8143434	134A
596493.1	8146298	134B
596711.1	8137673	135A
596686.6	8143532	135B
596906.3	8137070	136A
596894.1	8139594	136B
596882.3	8143108	136C
596918.1	8146582	136D
597095.9	8139525	137A
597086	8140179	137B
597233.5	8137693	138A
597255.7	8140011	138B
597262.4	8140984	138C
597274.9	8142595	138D
597490.8	8140987	139A
597490.5	8141713	139B
597499.4	8143616	139C
597535.7	8147669	139D
597688.2	8142537	140A
597679.5	8142977	140B
597647.6	8146037	140C
597901.9	8141025	141A
597902.7	8141291	141B
597926.5	8143145	141C
597913.8	8144724	141D
597931.9	8146340	141E
598097.8	8141462	142A
590899.5	8137180	701A
595649.3	8137179	701B
592575.8	8148279	703A
593156.6	8148259	703B

APPENDIX 8

Statement of Expenditure

STATEMENT OF EXPENDITURE

EXPLORATION LICENCE 7269

FINAL REPORT

Labour	44,113
Field Support/Office Staff	39,748
Other Contractors	4,359
Travel Accommodation/Meals	6,749
Field Supplies	2,717
Equipment Hire	27,429
Vehicles	13,347
Air Charter	11,627
Freight/Storage	1,093
Geophysics	20,360
Geochemistry	2,205
Laboratory	38,622
Drafting/Computing	3,969
Surveys	7,209
Other	1,579
Sub Total	225,126
Overheads (10% or 15%)	22,512
Total	$ 247,638

STATEMENT OF EXPENDITURE

EXPLORATION LICENCE 7228

FINAL REPORT

Wages and Salaries		135,917
Field Support/Office Staff		74,665
Travel Accommodation/Meals		21,371
Field Supplies		11,541
Equipment Hire		46,174
Vehicles		27,628
Freight/Storage		3,348
Aircraft Costs		42,638
Geophysics		21,147
HMS Plant		2,448
Laboratory		107,503
Drafting/Computing		4,162
Surveys		15,232
Aerial Surveys		4,267
Geochemistry		33,823
Drilling		41,524
Geophysics		52,619
Other		1,080
Sub Total		625,940
Overheads (10%)		62,594
Total	$	688,534